

## Q1. (2017)

|    |                                                                                                                                                                                                                   |    |                                                                            |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------|
| 29 | $\sin 72 = \frac{x}{8}$<br>or $8 \times \sin 72$<br>or $\cos (90 - 72) = \frac{x}{8}$<br>or $8 \times \cos (90 - 72)$<br>or $\frac{x}{\sin 72} = \frac{8}{\sin 90}$<br>or $\frac{\sin 72}{x} = \frac{\sin 90}{8}$ | M1 | oe<br>eg $8 \cos 72$ or 2.47... or 2.5<br>and $\sqrt{8^2 - (8 \cos 72)^2}$ |
|    | [7.6, 7.61]                                                                                                                                                                                                       | A1 |                                                                            |
|    | <b>Additional Guidance</b>                                                                                                                                                                                        |    |                                                                            |
|    | If trigonometry and Pythagoras are used it must be a fully correct method that would lead to the correct value of $x$                                                                                             |    |                                                                            |
|    | Accept $\sin 72 \times 8$                                                                                                                                                                                         |    | M1                                                                         |
|    | Accept opp or o for $x$ eg $\sin 72 = \frac{\text{opp}}{8}$                                                                                                                                                       |    | M1                                                                         |
|    | $\sin = \frac{x}{8}$ or $\sin \theta = \frac{x}{8}$ (unless recovered)                                                                                                                                            |    | M0                                                                         |
|    | Answer coming from scale drawing                                                                                                                                                                                  |    | M0A0                                                                       |
|    | Answer in range seen followed by 7 or 8                                                                                                                                                                           |    | M1A1                                                                       |

## Q2. (2024)

| Q  | Answer                                                         | Mark  | Comments                       |
|----|----------------------------------------------------------------|-------|--------------------------------|
| 19 | <b>Alternative method 1</b>                                    |       |                                |
|    | $\sin$ chosen or used                                          | M1    |                                |
|    | $31 \times \sin 24$                                            | M1dep | accept $31 \times [0.4, 0.41]$ |
|    | [12.6, 12.61]                                                  | A1    | accept 13 if M2 awarded        |
|    | <b>Alternative method 2</b>                                    |       |                                |
|    | $\cos (90 - 24)$                                               | M1    |                                |
|    | $31 \times \cos (90 - 24)$                                     | M1dep | accept $31 \times [0.4, 0.41]$ |
|    | [12.6, 12.61]                                                  | A1    | accept 13 if M2 awarded        |
|    | <b>Additional Guidance</b>                                     |       |                                |
|    | Check diagram for working                                      |       |                                |
|    | Allow correct use of sine rule to indicate $\sin 24$           |       |                                |
|    | Ignore rounding or truncating after the correct answer is seen |       |                                |
|    | $\sin 24 \times 31$                                            |       | M2                             |
|    | Do not accept answers from full sized or scale drawing         |       |                                |
|    | $\sin$ may be indicated by eg circling S in SOH CAH TOA        |       |                                |